The benefits of wildlife

1. Long-tailed Jaeger and wildlife photographer Fred Bruemmer
Photo: Fred Bruemmer

2. Columbian ground squirrel and the late Tom Hall, wildlife photographer
Photo: Dennis W. Schmidt

3. A golden-mantled ground squirrel gets close
Photo: Tom Hall

4. A Great Horned Owl watches a bird watcher
Photo: Raymond Holland

5. Viewing Rocky Mountain bighorn sheep in Banff National Park Photo: Tom Hall

Wildlife enhances our lives

Canadians love and appreciate wildlife. For many of us wildlife provides powerful images that help define the very essence of our country: the cry of a loon echoing across a lonely lake, the power and majesty of a polar bear, great Vs of Canada Geese wheeling in the sky. The experience of wildlife enriches the lives of all Canadians.

There are important emotional and social reasons why humans need to experience wildlife and nature from time to time. We all have to recharge our batteries, to get out and breathe a little fresh air. Sometimes simply taking a walk in the park or setting up a backyard bird feeder is enough; at other times we seek more active pastimes such as hiking, hunting, canoeing, or wildlife photography. The quality of these experiences is directly related to the quality of our Canadian wildlife and wildlife habitat.

Canadians are starting to learn that wildlife is not merely a source of personal pleasure, as deep and meaningful as that pleasure might be. We are beginning to understand that the health of our wildlife is an excellent indication of the health of the environment on which we depend, and that healthy wildlife populations and habitat are important to our own social and economic well-being.

Wildlife is important to people

It is relatively easy to appreciate the direct value of wildlife to Canada's native peoples, who often rely on the wild harvest for food, clothing, and income. For some of Canada's native populations, over half of their total income comes directly from hunting, fishing, and trapping, while food taken from the bush can account for a high percentage of dietary needs.

And, even though most Canadians may not depend directly on wildlife for sustenance, the role that wildlife plays in their lives is still very important. Witness the more than 10 000 Canadians across the country who took the time to venture out into the snow for the 1987 Christmas Bird Count, an annual census to determine numbers and species of birds wintering in Canada.

Statistics Canada, on behalf of provincial and federal wildlife agencies, carried out an extensive survey on the value of wildlife to Canadians. The survey sought to gauge the significance of wildlife through questions on attitudes toward the importance of healthy and abundant wildlife populations, participation in a number of wildlife-related activities, and wildlife-related expenditures in 1981.

The results were published by the Canadian Wildlife Service from 1983 to 1988. The survey showed that activities that depend on wildlife were a popular form of recreation for most Canadians. In fact, 90 percent of the surveyed population, or 16.7 million Canadians, were involved in some form of wildlife-related activity. And most of them (70 percent) took part in two or more types of activity during the year.

Other findings:

- About 12 million Canadians (67 percent of the population) participated in wildlife-related activities around their residence or cottage. These activities included feeding, watching, studying, or photographing wildlife
- 3.6 million people (19 percent of the population) made trips or outings whose primary purpose was to enjoy wildlife
- 8.1 million people (44 percent of Canadians) had an incidental encounter with wildlife during a trip or outing made for some other purpose
- 1.8 million Canadians, or 10 percent of the population, hunted during 1981
- 1.1 million Canadians belonged or contributed to wildlife organizations
- 15.5 million Canadians (84 percent of the population) engaged in activities such as watching wildlife films or television programs; reading wildlife books or magazines; visiting game farms, zoos, aquariums, or natural history museums; or purchasing wildlife art, crafts, or posters.

These figures show the dimensions of the attraction that wildlife has for Canadians. Activities that depend on wildlife are a vital part of the ordinary, everyday lives of an overwhelming majority of Canadians.

Consider the birds

For centuries birds have contributed to man's physiological needs for protein and clothing and they continue to do so today in many parts of the world. Birds contribute towards mankind's safety needs by consuming incredible amounts of insects which would otherwise destroy crops, and by serving as valuable bio-indicators which warn us of the changing quality of the natural environment . . . . An indication that "belongingness and love needs" are satisfied by birds is reflected in the fact that many humans spend considerable amounts of time and money providing food and shelter for birds. In many cultures birds are revered and even attributed religious sanctity. "Esteem needs" are met when a successful hunt confirms the skill of the hunter or when a committed bird-watcher adds yet another species to a life list. The "need for self-actualization" is gratified by the inspiration birds provide for art or through the peak experience when a rising flock fills the skies with sublime pandemonium.

— F.L. Filion, "Birds as a socio-economic resource: A strategic concept in promoting conservation".

Wildlife is important to natural processes
Wildlife also plays a vital role in the ecological and biological processes that are essential to life itself. The functioning of the biosphere, and hence the maintenance and enhancement of human life, depends on a countless number of interactions among plants, animals, and microorganisms.

These ecological processes are essential for agriculture, forestry, fisheries, and other endeavours necessary to human life. They also help maintain environmental quality by degrading and otherwise removing some pollutants and by preventing waste accumulation.

Some of the biological processes in which wild species play a key role are pollinization, germination, seed dispersal, soil generation, nutrient cycling, predation, pest control, habitat maintenance, and waste breakdown.

Wildlife is important to science and agriculture
Wildlife and wildlife habitat are also important for the preservation of genetic diversity. Canada's agriculture, forests, and fisheries all rely on crops or stocks that are adapted to local or regional conditions and that can withstand pests, diseases, predators, pollutants, and other threats.

The diverse genetic material present in Canada's heritage of living resources can help ensure that the forest, crops, and stocks Canadians rely on will remain varied and resilient enough to withstand an ever-increasing list of threats. Likewise, in medicine, the development of new drugs and treatments depends greatly on wild species.

Wildlife is important to the Canadian economy
Every spring, migrating songbirds draw thousands of visitors to Point Pelee National Park in southern Ontario. Close to 40 species of brightly coloured warblers visit the park, and so do thousands of bird watchers, who spend $710 000 on film and processing alone in a single month. The presence of these visitors adds $10 million to the local economy during the month of May.

This is just one example of the economic value of wildlife to a local economy. When the economic value of wildlife-related activities is computed on a national scale, as in the Statistics Canada survey, the totals are impressive. Canadians spent $4.2 billion on wildlife-related activities in 1981. This money went for everything from licence fees for hunting to binoculars for birdwatching, and from outdoor clothing to transportation and hotels. The economic stimulus provided by wildlife supported 185 000 jobs, contributed $5.2 billion to the Gross Domestic Product, and put tax revenues worth nearly $2 billion into government coffers across Canada. The chart shows the breakdown of these benefits province by province.

Canadians believe that they are getting benefits from their wildlife experiences worth far more than their actual expenditures. In the survey, they expressed a willingness to spend nearly $1 billion more than the $4.2 billion they had actually spent in 1981 on wildlife-related activities.

Sustaining the benefits
The sheer scale of the benefits provided by wildlife to individuals and the economy is one more impelling reason for maintaining wildlife populations and habitats in a productive, healthy state. However, wildlife is under stress. Species are disappearing at a faster and faster rate. Some 28 species of animals are now listed as endangered or threatened in Canada. And wildlife habitat is disappearing even faster as it is drained and cultivated, paved over, or strip-mined as industrialization proceeds apace. One strategy for maintaining abundant wildlife populations is to remind business executives and decision-makers that wildlife resources should be treated as "assets to be conserved and managed for the benefit of all humanity." These words are taken from the "Brundtland Report," prepared by the United Nations World Commission on Environment and Development.

The Brundtland Report argues that the continued existence of humanity on the planet and the elimination of global poverty depend on recognizing the very strong links between the environment and economic development. The natural environment is the foundation of economic growth, and it is only possible to enjoy economic growth now and in the future if a healthy environment is maintained. This principle is the basis of the concept called "sustainable development."

From the perspective of sustainable development, wildlife is a renewable resource that provides many benefits and socio-economic advantages. Canadians have much to gain by treating wildlife and wildlife habitat as the precious resources they are and managing them in such a way that future generations will receive their full benefits in perpetuity.

In order to achieve sustainable development, governments, industry, environmental organizations, and the general public must exercise care in the way in which they think about the environment and the economy. The environmental considerations cannot be considered luxury add-ons, afterthoughts to the planning process. They must be made integral to economic policy making and a required element of any economic development proposal.

The North American Waterfowl Management Plan: An example of sustainable development
Canada has begun to move toward the goal of managing wildlife on the basis of sustainable development in several important ways, perhaps most noticeably in waterfowl conservation.

In the 1970s, as many as 100 million waterfowl made the annual migration south from Canada to the United States and other countries. Today, these numbers have declined significantly, primarily because of loss of habitat to other land uses.

Migrating ducks and geese are a spectacular reminder of seasonal rhythms. Over 700 000 Canadians hunted waterfowl in 1981,

Economic impact of expenditures on wildlife-related recreation in Canada, 1981

	Expenditures by residents	Economic impact of expenditures		
		Jobs sustained	Contribution to gross domestic product	Contribution to government revenue from taxes
Canada	$4.2 billion	185 000 jobs*	$5.2 billion*	$1.9 billion*
British Columbia	$801 million	18 948 jobs	$520 million	$95 million
Alberta	$550 million	14 192 jobs	$587 million	$76 million
Saskatchewan	$173 million	4 411 jobs	$143 million	$23 million
Manitoba	$159 million	8 241 jobs	$198 million	$32 million
Ontario	$1363 million	71 377 jobs	$1882 million	$297 million
Quebec	$767 million	50 027 jobs	$1242 million	$261 million
New Brunswick	$108 million	3 680 jobs	$81 million	$16 million
Nova Scotia	$167 million	5 270 jobs	$121 million	$24 million
Prince Edward Island	$8 million	343 jobs	$9 million	$2 million
Newfoundland	$94 million	2 743 jobs	$62 million	$13 million

* Data for provinces do not add up to the total for Canada because Statistics Canada used a different model to produce national statistics than it did to produce provincial statistics, and because revenue from taxes in the total for Canada includes both federal and provincial taxes.

and 4.7 million people enjoyed observing them. About 40 000 jobs depend on waterfowl-related activities such as tourism, hunting, and waterfowl observation. Considerable social and economic values are therefore at risk when waterfowl populations shrink.

Recognizing the importance of sustaining these benefits, in 1986 Canada and the United States agreed to a North American Waterfowl Management Plan, an ambitious attempt to restore waterfowl populations by protecting and improving the wetlands and grasslands that ducks, geese, and swans need for breeding, nesting, and migrating. An important part of the plan is assisting landowners in managing their lands in ways that will benefit both them and waterfowl.

Public and private conservation organizations have committed themselves to generating the $1.5 billion needed to attain the Plan's objectives by the year 2000. This is a lot of money, but an excellent investment from the point of view of sustainable development because waterfowl will contribute more than $15 billion to Canada's Gross Domestic Product during this period.

The North American Waterfowl Management Plan is an extremely important step in the right direction, but much more can and must be done to make the environment and the economy work together for sustainable development.

Wildlife for the future

Canadians cherish wildlife for its own sake. They appreciate it as a resource that adds colour and variety to the world, humbles them to the realization of their interconnectedness with all forms of life, astonishes by its beauty, strength, and adaptability, and inspires art, music, and literature. Although wildlife has not traditionally been thought of as a major contributor to our economic well-being, we are becoming increasingly aware that its contribution to the Canadian economy is considerable and that even from a strictly economic viewpoint expenditures on wildlife conservation are justifiable. Dollars spent on wildlife conservation pay themselves back, with interest. As the North American Waterfowl Management Plan demonstrates, the economic costs of letting our wildlife populations languish are far greater than those of protecting them. Wildlife must be managed as a sustainable resource.

Sustainable development is a challenge for us to achieve, but it holds the promise of ensuring that human beings can enjoy both a healthy environment *and* a healthy economy. The choice is not one or the other. Sustainable development will ensure that the numerous tangible and intangible benefits of wildlife that we enjoy today can be enjoyed by future generations as well.

Reading list

Filion, F.L. 1987. Birds as a socio-economic resource: A strategic concept in promoting conservation. Pages 7-14 *in* Diamond, A.W., Filion, F.L. (eds.) The value of birds. International Council for Bird Preservation, Cambridge, England.

Filion, F.L., Parker, S., DuWors, E. 1988. The importance of wildlife to Canadians: Demand for wildlife to 2001. Canadian Wildlife Service, Ottawa, Canada.

Filion, F.L. *et. al.* 1983. The importance of wildlife to Canadians: Highlights of the 1981 national survey. Canadian Wildlife Service, Ottawa, Canada.

Filion, F.L., Jacquemot, A., Reid, R. 1985. The importance of wildlife to Canadians: An executive overview of the recreational economic significance of wildlife. Canadian Wildlife Service, Ottawa, Canada.

International Union for the Conservation of Nature and Natural Resources. 1980. World conservation strategy. Gland, Switzerland.

United Nations World Commission on Environment and Development (Brundtland Commission). 1987. Our common future. Oxford, England.

United States Fish and Wildlife Service and Canadian Wildlife Service. 1986. North American waterfowl management plan: A strategy for co-operation. Canadian Wildlife Service, Ottawa, Canada.

The Canadian Wildlife Service

The Canadian Wildlife Service of Environment Canada handles wildlife matters that are the responsibility of the Canadian government. These include protection and management of migratory birds as well as nationally significant wildlife habitat. Other responsibilities are endangered species, control of international trade in endangered species, and research on wildlife issues of national importance. The Service co-operates with the provinces, territories, Canadian Parks Service, and other federal agencies in wildlife research and management.

For more information about the Canadian Wildlife Service or its other publications, please write to:

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